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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,998	03/23/2006	Martin Lang	VO-749	9030
43419 7590 11/26/2008 PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195				
EXAMINER				
HUNTER, QUINN T				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,998

Applicant(s)

LANG ET AL.

Examiner

QUINN HUNTER

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 17-22 is/are rejected.
- 7) ☒ Claim(s) 12-16 and 23-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/29/2006 and 09/24/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 24 and 25 objected to because of the following informalities: Claims 23-25 lack antecedent basis as they reference a holding strip, though no holding strip is claimed in the preceding claims 1-10. As best understood by examiner, claims 23-25 are dependent on claim 11, which claims the holding strip. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 17, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (Japanese Patent 08046381 1) (from IDS).

In re claim 1, Shimada discloses:

- a mounting plate (10) for electronic components (GTR), having cooling conduits (12, 14, 16, 18) integrated in a plate body for a cooling medium to flow through
- at least one holding element with a fastening screw thread (N4, M4, Drawing 2) and at least one first groove (GP) or rib, to be undercut, extending in a straight line in an extension direction of the mounting plate (10), and into

which the at least one holding element is insertable for fixing the component (GTR) in place.

In re claim 2, Shimada discloses wherein the fastening arrangement has at least one second groove (GP) or rib, similar to the first groove or rib and extending parallel with respect to the first groove or rib, with a distance from the first groove or rib substantially determined by the a length of extension of the electronic component (GTR) to be mounted, which runs perpendicularly with respect to the first or second groove (GP) or rib.

In re claim 3, Shimada discloses wherein the fastening arrangement has at least one further groove (GP) or rib extending parallel with the second groove or rib, similar to the first groove or rib and the second groove or rib, which extends along the side of the second groove or rib facing away from the electronic component to be mounted at a distance which is less than the distance between the first groove or rib and the second groove or rib.

In re claims 4 and 17, Shimada discloses wherein electronic components (GTR), which have screw holes (N1, N2, N3, N4), can be fastened by screws directly on the holding elements (N4, M4) inserted into the grooves (GP) or ribs, or can be fixed in place by strip-like holding elements, which are attached one of indirectly and directly to the holding elements.

In re claim 19, Shimada discloses, wherein the holding (Drawing 2, Shimada) element is a spring nut.

In re claim 20, Shimada discloses wherein at least one of the first groove (GP Shimada), the second groove and the next further groove are embodied in one piece with the plate body.

In re claim 21, Shimada discloses wherein at least one holding element is embodied as a groove insert which has a base part (M4, Shimada) insertable into one of the grooves, and a top part (N4, Shimada) protruding from the groove, in an inserted state of the groove insert the top part (N4, Shimada) has a fastening section spaced apart from a mounting level of the mounting plate, which is positionable above a base part (Drawing 2 Shimada), of the component (GTR, Drawing 2 Shimada) to be fixed in place, wherein a distance of the fastening section is greater than a thickness of the base part in a normal direction with respect to the mounting level, and that at least one threaded bore is provided in the fastening section, into which an attachment screw (Drawing 2 Shimada), that works together with the base part, can be rotated for fixing the component in place.

In re claim 22, Shimada discloses wherein at least one holding element is a sliding block with a base part (M4, Shimada) which can be pushed into one of the grooves, and a top part (N4, Shimada) protruding from the groove, and a threaded bore is arranged in the top part (N4, Shimada) in a normal direction with respect to the mounting level, on which a holding for the component can be screwed in place.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada (Japanese Patent 08046381 1) (from IDS) in view of Dessert (US 3,398,249).

In re claims 5 and 18, Shimada discloses the claimed invention except wherein the fastening arrangement comprises at least one angled sheet metal piece, and electronic components having holes with a spacing between each other that is one of less than the distance between the second groove and the first groove, and less than the distance of the still next further groove from the first groove, can be clampingly fixed in place at least on one side by an angled sheet metal piece with at least one screw engaging at the holding element inserted into the corresponding groove.

E. P. Dessert teaches that an electrical component (58, Fig 5) may be kept to a plate (P', fig 5) with an angled sheet metal piece (14, Fig 5) and screw. It would have been obvious to one skilled in the electronics mounting art to have modified an electrical component to be fastened by an angled sheet metal piece, as taught by E. P. Dessert, to more securely fasten an electronic piece to a plate, since all of the claimed elements were known at the time of the invention and could have been combined using known methods in the electronics mounting art to achieve a predictable result of an electrical

component bound to a plate by sheet metal piece in addition to a screw. *KSR International Co. v. Teleflex Inc.* (KSR), 550 U.S. ___, 82 USPQ2d 1385 (2007)

In re claim 6, Shimada in view of Dessert discloses, wherein the angled sheet metal piece (14, Fig 5 Dessert) has a flat base plate (46a, Fig 8 Dessert) for placement against the mounting plate and a clamping area (50a, b, Fig 8), which is angled with respect to it, for the clamping fixation of the electronic component to be mounted.

In re claim 7, Shimada in view of Dessert discloses wherein the angled sheet metal piece (14, Fig 5 Dessert) has at least one elongated hole (52, Fig 5 Dessert) which extends perpendicularly with respect to the direction of extension of the second groove or the still further groove, for receiving the screw.

In re claim 8, Shimada in view of Dessert discloses, wherein the holding (Drawing 2, Shimada) element is a spring nut.

In re claim 9, Shimada in view of Dessert discloses wherein at least one of the first groove (GP Shimada), the second groove and the next further groove are embodied in one piece with the plate body.

In re claim 10, Shimada in view of Dessert discloses wherein at least one holding element is embodied as a groove insert which has a base part (M4, Shimada) insertable into one of the grooves, and a top part (N4, Shimada) protruding from the groove, in an inserted state of the groove insert the top part (N4, Shimada) has a fastening section spaced apart from a mounting level of the mounting plate, which is positionable above a base part (Drawing 2 Shimada), of the component (GTR, Drawing 2 Shimada) to be fixed in place, wherein a distance of the fastening section is greater than a thickness of

the base part in a normal direction with respect to the mounting level, and that at least one threaded bore is provided in the fastening section, into which an attachment screw (Drawing 2 Shimada), that works together with the base part, can be rotated for fixing the component in place.

In re claim 11, Shimada in view of Dessert discloses wherein at least one holding element is a sliding block with a base part (M4, Shimada) which can be pushed into one of the grooves, and a top part (N4, Shimada) protruding from the groove, and a threaded bore is arranged in the top part (N4, Shimada) in a normal direction with respect to the mounting level, on which a holding for the component can be screwed in place.

Allowable Subject Matter

6. Claims 12-16, 23, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable (subject to correction of the objections as stated above) if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 12 and 23 claim a "holding strip which can be arranged transversely with respect to the grooves and is dimensioned to span the distance between the two grooves and can be fixed in place by threaded bores in the end sections on both sides in at least one of the sliding blocks and groove inserts pushed into the respective grooves." Holding strips that span the distance between two grooves were known in the Shimada reference (see 112, Drawing 1). These however do not fix into the holding

element sliding blocks or the holding element groove inserts of Shimada. This claim element is neither found in the prior art of record and therefore makes claims 12 and 23 allowable over the prior art of record.

Claims 13-16 are dependent on allowable claim 12 and are therefore allowable over the prior art of record.

Claims 24 and 25, as best understood, are dependent on allowable claim 23, and are therefore allowable over the prior art of record.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim (US 5,943,207), Stritt et al (US 4,351,620), Salmonson (US 5,761,043), Casey (US 3,218,519), Stewart et al (US 5,870,284), Patel (US 6,421,240 B1), and Fritz et al (US 3,743,892) disclose an electronic component with holding elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUINN HUNTER whose telephone number is (571)270-3910. The examiner can normally be reached on Mon.-Fri., 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Quinn Hunter
Examiner
Art Unit 2835

/Anatoly Vortman/
Primary Examiner, Art Unit 2835